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EXAMINER

FERGUSON, LAWRENCE D

ART UNIT

PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.



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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 15

Application Number: 09/551,537
Filing Date: April 18, 2000
Appellant(s): ARIOKA ET AL.

Robert S. Green
For Appellant

MAILED

MAR 26 2002

GROUP 1700

EXAMINER'S ANSWER

This is in response to the appeal brief filed January 8, 2003.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

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(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-5 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5952073	Hurditch	09-1999
5547728	Cunningham et al	8-1996

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections – 35 USC § 103(a)

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurditch et al. (U.S. 5,952,073).

4. Hurditch discloses a recordable medium comprising a protective layer, a reflective layer in proximity to the protective layer, a recording layer with a dye composition in proximity to the reflective layer and a transparent substrate on which the recording layer is formed (column 7, lines 10-16) where the recordable medium comprises a dye layer (column 7, line 64). Hurditch discloses the recording layer is formed by dissolving the dye mixture in a coating solvent at 2-10% by weight of the total components in the solution (column 10, lines 26-29) and typical organic solvents for use with the dye mixtures comprising diacetone alcohol (column 10, lines 44-45) and spin coating (column 10, lines 48-49). The reference discloses the dye layer may be optionally dried (column 11, line 8) meaning the dye layer does not necessarily have to undergo a drying treatment. Hurditch does not explicitly disclose the organic dye layer in

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an amount of 2 to 15% by weight, however the reference does disclose an amount of 2 to 10% by weight (column 10, lines 26-29). Even though Hurditch does not disclose the solvent in an amount up to 15%, the solvent range is optimizable because it affects the reflecting layer of the recording medium. It would have been obvious to one of ordinary skill in the art to optimize the components because discovering an optimum or workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233 and also see *In re Boesch* 205 USPQ 215.

Claim Rejections – 35 USC § 103(a)

5. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurditch et al. (U.S. 5,952,073) in view of Cunningham et al (U.S. 5,547,728).

6. Hurditch is relied upon for claims 1 and 3-4. Hurditch does not disclose the rotating speed for the spin coating. It would have been obvious to one of ordinary skill in the art to find the optimum rotating speed in order to provide optimal working conditions. Hurditch also does not disclose the organic solvent as 2,2,3,3-tetrafluoro-1-propanol.

Cunningham teaches an optical recording element having a transparent substrate, a recording layer and a light reflecting layer (abstract) and a protective layer over the reflective layer (column 10, line 65). Cunningham teaches the use of coating solvents such as 2,2,3,3-tetrafluoro-propanol. Hurditch and Cunningham are analogous art because they are from the same field of recording medium. It would have been obvious to combine the organic solvent, 2,2,3,3-tetrafluoro-propanol, as a solvent for the

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dye layer of Hurditch because Cunningham teaches that solvents such as 2,2,3,3-tetrafluoro-propanol is selected for its minimal effect on the substrate.

(11) Response to Argument

Issue 1

Appellant maintains that claims 1 and 3-4 are not unpatentable over Hurditch et al. (U.S. 5,952,073). Appellant maintains that 'the dye layer may be optionally dried to further remove residual solvent...' means that the solvent is removed from the applied dye layer or that removal of the solvent may be accelerated by additional drying. Examiner respectfully disagrees with this presumption because Hurditch discloses 'after spin coating, the dye layer may be optionally dried to further remove residual solvent and improve uniformity of the recording characteristics' (column 11, line 8-10) meaning the dye layer does not necessarily have to undergo a drying treatment. Hurditch uses the same spin coating technique the instant application uses which is capable of undergoing an additional drying step; however, an additional drying step is not necessary. During spin coating, excess solvent can be removed from the dye layer. Furthermore, the term 'optionally' means having a choice to decide. If the Hurditch reference included this accelerated removal of solvent, it would have specifically stated this feature. Appellant argues, by stating that the drying is 'additional,' the reference is stating unequivocally that the 'additional drying' is an addition to any drying that is already occurring or has already occurred. In response to Appellant's argument that the

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references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., 'additional drying' is an addition to any drying that is already occurring or has already occurred are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). There is nothing in Hurditch that discloses additional drying or an initial drying. Appellant further argues Hurditch et al. '073 does not disclose, teach or suggest the absence of a drying step. Examiner acknowledges Appellant's argument and reiterates that Hurditch et al. '073 does not explicitly disclose, teach or suggest the presence of a drying step.

Appellant argues Hurditch does not disclose solvent in an organic dye layer in an amount of 2-10% by weight at column 10, lines 26-29 but only discloses dye plus nickel stabilizer. It should first be pointed out that the 2-15% solvent present is a residual amount present after the spinning step. Appellant argues it would not be obvious to one of ordinary skill in the art to substitute 'an organic solvent in an organic dye layer in an amount of 2 to 15% by weight based on an organic dye' for 'dissolving the dye mixture together with any additional nickel stabilizer in a coating solvent at a concentration in the range 2-10% by weight of the total solid components in the solution' of Hurditch et al. '073. However substitution is not required but obviously much of the solvent added to dissolve the dye would evaporate upon spinning leaving a residual amount. The reference must also have a residual amount of solvent although it is not mentioned explicitly. Appellant argues that Hurditch does not show that the solvent is present in the

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organic layer at amounts between 2-15% by weight based on the organic dye. It is true that Hurditch does not mean the residual solvent amounts that the Appellant is referring to. However, the reference uses the same types of dyes (cyanine) that Appellant uses and also the same solvents such as diacetone alcohol. The reference adds the dye to be dissolved into the solvent in the same ranges as Appellant. The spinning method is the same and the amount of residual solvent can only be expected to be the same. Appellant is arguing the amounts Examiner referred to as being present before spinning, but these are not the residual amounts. Although the reference does not mention residual amounts, obviously all of the solvent used to dissolve the dye would not be present after spinning. As stated above, Appellant is dissolving the dye in the amounts of the same range that Appellant is dissolving the very same types of dyes, also using the same solvent. Therefore, the residual amounts could only be expected to be in the same range, absent any evidence to the contrary.

Appellant argues Examiner has acknowledged that not all of the features are disclosed in Hurditch et al. Examiner agrees with this assertion. Appellant argues the §102 rejection was simply converted to a §103 rejection and has failed to make a prima facie case of obviousness. Examiner respectfully disagrees because the rejection made in Paper No. 13 was a first office action on the merits, which set forth a prima facie case, which Appellant responded to in the form of an Appeal Brief.

Appellant argues Examiner is misreading the reference for what it states by taking a portion of Hurditch out of context in column 11, lines 9-10. Appellant maintains the sentence does not mean 'that the layer does not have to be dried.' Examiner

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acknowledges Appellant's argument and reiterates that Hurditch et al. '073 does not explicitly disclose, teach or suggest the presence of a drying step. The term optionally means having a choice whether to dry the dye layer or not. Appellant reiterates the argument. Appellant refers to the Final Office Action on page 8, line 5 in the Appeal Brief. The Office Action sent out in Paper No. 13 was a new Non-Final Office Action on the merits.

Issue 2

Appellant maintains that claims 2 and 5 not unpatentable over Hurditch et al. (U.S. 5,952,073) in view of Cunningham et al (U.S. 5,547,728). Appellant argues Cunningham is applied solely for the proposition that the solvent can be 2,2,3,3-tetrafluoro-1-propanol. Appellant further argues Cunningham does not make up for the deficiencies of Hurditch et al. '073. Cunningham cannot overcome the deficiencies of Hurditch since the rejections are based on Hurditch. Because the Hurditch rejection has been maintained, the §103 rejection including Cunningham is also maintained for reasons of record. Appellant argues Cunningham does not disclose, teach or suggest an optical recording medium having an organic dye layer, a reflecting layer and a protective layer in this order on a light transmittable substrate, or that the optical recording medium contains an organic solvent in the organic dye layer in an amount of 2% to 15% by weight based on an organic dye, in such a way that would make up for the deficiencies of Hurditch et al. '073. Cunningham was only added to teach the conventionality of the specific solvent. Cunningham teaches an optical recording

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element having a transparent substrate, a recording layer and a light reflecting layer (abstract) and a protective layer over the reflective layer (column 10, line 65).

Cunningham teaches the conventional use of coating solvents such as 2,2,3,3-tetrafluoro-propanol.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

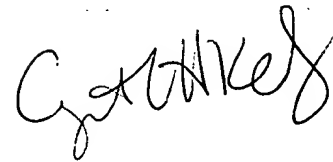
For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Lawrence Ferguson
March 24, 2003

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